

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/014633

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ B32B15/08, B05D5/00, 7/14, C23C28/00, F28F1/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ B32B1/00-35/00, B05D1/00-7/26

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-2004
Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP 62-278033 A (Showa Aluminum Corp.), 02 December, 1987 (02.12.87), Claims; page 2, upper left column; page 2, lower left column to lower right column; page 4, lower right column to page 5, upper left column (Family: none)	1-8, 10-21, 23-26 9, 22
X A	JP 59-205596 A (Showa Aluminum Corp.), 21 November, 1984 (21.11.84), Claims; page 4, lower left column to lower right column (Family: none)	1-8, 10-21, 23-26 9, 22

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
08 December, 2004 (08.12.04)

Date of mailing of the international search report
28 December, 2004 (28.12.04)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2 004/014633

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP 1-240689 A (Kobe Steel, Ltd.), 26 September, 1989 (26.09.89), Claims (Family: none)	1-8, 10, 12-21, 23, 25-26 9, 11, 22, 24
X A	JP 60-58269 A (Mitsubishi Heavy Industries, Ltd.), 04 April, 1985 (04.04.85), Claims; page 2, upper left column to upper right column (Family: none)	1-8, 10, 12-21, 23, 25-26 9, 11, 22, 24
X A	JP 60-82169 A (Mitsubishi Heavy Industries, Ltd.), 10 May, 1985 (10.05.85), Claims; page 2, upper left column to upper right column (Family: none)	1-8, 10, 12-21, 23, 25-26 9, 11, 22, 24

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1-7, 14-20
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
It is unclear what kind of substance is specifically referred to by "coating material with affinity" defined in claims 1 and 14, and the invention defined in claims 1-7 and 14-20 which requires to have a hydrophobic coating film but does not require to form a hydrophilic coating (continued to extra sheet)
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Continuation of Box No.II-2 of continuation of first sheet(2)

film thereon is inadequately supported by the description.

Although the invention of claims 1 and 14 requires to form "a coating film made of a coating material with affinity" on the surface of a base, it is natural to select a material having an affinity to the base regardless of the surface shape of the base in case when a coating is formed thereon. Further, the invention of claims 1-7 and 14-20 does not require to form a coating film composed of a hydrophilic coating material on a coating composed of a hydrophobic organic coating material, and no specific example is disclosed in the description. Even by taking the detailed explanation of the invention into consideration, the object of the invention is to form a coating film of a hydrophobic organic coating material as a foundation layer having water resistance so as to form a hydrophilic coating film on the outermost surface, and no other technical meaning can be found in forming only a coating film composed of a hydrophobic organic coating material having an affinity to a base. Consequently, the invention of the claims 1-7 and 14-20 is not adequately supported by the description, and thus no search has been carried out on them.